In the Claims:

A complete listing of claims in the instant application is provided below as follows:

1. (Currently amended) ~~A~~ An underwater power generator ~~for~~ comprising:

an underwater vessel ~~that transits~~ for navigating through a body of water in order to transit through an underwater thermocline having a temperature range, said ~~power generator comprising:~~ underwater vessel including a shell;

at least a portion of ~~a~~ said shell of ~~an~~ said underwater vessel made from a thermally conductive material, said portion having an outer surface in contact with ~~a surrounding underwater environment~~ the body of water and an inner surface opposing said outer surface and not in contact with ~~said surrounding underwater environment~~ the body of water;

a plurality of thermo-to-electric energy converters electrically coupled together, each of said plurality of thermo-to-electric energy converters having a first surface and a second surface with said first surface being thermally coupled to said inner surface of said portion of said shell; and

a phase change material thermally coupled to each said second surface of said plurality of thermo-to-electric energy converters, said phase change material having a phase change temperature that is approximately equal to an average of upper and lower temperature extremes of said temperature range of said underwater

thermocline, wherein said plurality of thermo-to-electric energy converters generate electrical power as ~~the~~ said underwater vessel navigates through the body of water so that said underwater vessel transits through said underwater thermocline.

2. (Currently amended) ~~A~~ An underwater power generator as in claim 1 wherein each of said plurality of thermo-to-electric energy converters is selected from the group consisting of bismuth telluride and bismuth telluride-antimony telluride.

3. (Currently amended) ~~A~~ An underwater power generator as in claim 1 wherein said phase change material is a paraffin wax.

4. (Currently amended) ~~A~~ An underwater power generator as in claim 3 wherein each of said plurality of thermo-to-electric energy converters is selected from the group consisting of bismuth telluride and bismuth telluride-antimony telluride.

5. (Currently amended) ~~A~~ An underwater power generator as in claim 1 further comprising a material structure having tubular passages formed therein and filled with said phase change material, said material structure positioned adjacent said plurality of thermo-to-electric energy converters.

6. (Currently amended) ~~A~~ An underwater power generator as in claim 5 wherein said phase change material is a paraffin wax.

7. (Currently amended) ~~A~~ An underwater power generator as in claim 6 wherein each of said plurality of thermo-to-electric energy converters is selected from the group consisting of bismuth telluride and bismuth telluride-antimony telluride.

8. (Currently amended) ~~A~~ An underwater power generator as in claim 1 wherein said plurality of thermo-to-electric energy converters are electrically coupled together in series.

9. (Currently amended) ~~A~~ An underwater power generator as in claim 1 wherein said plurality of thermo-to-electric energy converters are electrically coupled together in parallel.

Claims 10-14 (Canceled)

15. (Currently amended) A method of generating power ~~generation~~ underwater comprising the steps of:

providing ~~an~~ a navigating underwater vessel in a body of water having an underwater thermocline, the underwater vessel having at least a portion of a shell thereof made from a thermally conductive material, said portion having an outer surface in contact with ~~a surrounding underwater environment~~ the body of water and an inner surface opposing said outer surface and not in contact with ~~said surrounding underwater environment~~ the body of water;

providing a plurality of thermo-to-electric energy converters electrically coupled together, each of said plurality of thermo-to-electric energy converters having a first surface and a second surface;

positioning said plurality of thermo-to-electric energy converters such that each said first surface is thermally coupled to said inner surface of said portion of said shell;

thermally coupling a phase change material to each said second surface of said plurality of thermo-to-electric energy converters, said phase change material having a phase change temperature that is approximately equal to an average of upper and lower temperature extremes of ~~said~~ a temperature range of said underwater thermocline; and

~~transiting~~ navigating the underwater vessel through the body of water in order to transit said underwater thermocline, wherein said plurality of thermo-to-electric energy converters generate

electrical power.

16. (Currently amended) A method according to claim 15 further comprising the step of continuously repeating said step of ~~transiting~~ navigating.

17. (Original) A method according to claim 15 wherein each of said plurality of thermo-to-electric energy converters is selected from the group consisting of bismuth telluride and bismuth telluride-antimony telluride.

18. (Currently amended) A ~~power generator as in~~ method according to claim 15 wherein said phase change material is a paraffin wax.

19. (Original) A method according to claim 15 further comprising the steps of:

providing a material structure having tubular passages formed therein and filled with said phase change material; and

positioning said material structure adjacent said plurality of thermo-to-electric energy converters.

20. (Original) A method according to claim 19 wherein said phase change material is a paraffin wax.

21. (Original) A method according to claim 20 wherein each of said plurality of thermo-to-electric energy converters is selected from the group consisting of bismuth telluride and bismuth telluride-antimony telluride.